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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,839	02/27/2002	Jean-Claude Junqua	9432-000164	6211

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EXAMINER	
HARPER, V PAUL	
ART UNIT	**PAPER NUMBER**
2654	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/083,839	JUNQUA, JEAN-CLAUDE	
	Examiner	Art Unit	
	V. Paul Harper	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 4-10 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Addison et al. (U.S. Patent 6,865,533), hereinafter referred to as Addison.

Regarding **claim 1**, Addison discloses a text-to-speech system that includes a method with the following steps:

- receiving input text (Fig. 1, item 12; Fig. 2, item 112);
- determining a topic for the input text (Fig. 2, item 114; col. 3, lines 50-63; col. 11, lines 58-68; col. 18, lines 20-28; when processing the text, artificial intelligence rules determine general informational content [topic]);
- determining a speaking style based on the identified topic, where the speaking style correlates to prosodic parameters (col. 24, lines 15-21; a style is determined); and
- converting the input text to audible speech using the prosodic parameters (Figs 1-3, item 34, speech output).

Regarding **claim 4**, Addison teaches everything claimed, as applied above (see claim 1). In addition, Addison teaches the following:

- converting the input text to corresponding phoneme data (Fig. 1, item 22; col. 8, lines 33-39);
- applying prosodic parameters to the phoneme data, thereby generating a prosodic representation of the phoneme data (Fig. 1, item 28; Fig. 2; items 114, 116, 120, and 122); and
- generating audible speech using the prosodic representation of the phoneme data (Fig. 1, item 34, Figs 2 and 3, Speech Output).

Regarding **claim 5**, Addison discloses a text-to-speech system that includes a method with the following steps:

- receiving input text (Fig. 1, item 12; Fig. 2, item 112);
- determining semantic information for the input text (Fig. 2, item 114; col. 3, lines 50-63; col. 11, lines 58-68; col. 18, lines 20-28; when processing the text, artificial intelligence rules determine general informational content);
- determining a speaking style for rendering the input text based on the semantic information (col. 24, lines 15-21; a style is determined); and
- customizing an output parameter of a multimedia user interface of the text-to-speech synthesizer system based on the speaking style, where the text-to-speech synthesizer system is operable to render audible speech which correlates to the input text (Figs 1-3, item 34, speech output system).

Regarding **claim 6**, Addison teaches everything claimed, as applied above (see claim 5). In addition, Addison teaches "the step of determining semantic information further comprises determining a topic for the input text" (Fig. 2, item 114; col. 3, lines 50-63; col. 11, lines 58-68; col. 18, lines 20-28; when processing the text, artificial intelligence rules determine general informational content [topic]).

Regarding **claim 7**, Addison teaches everything claimed, as applied above (see claim 5). In addition, Addison teaches "the step of determining semantic information further comprises partitioning the input text into a plurality of context spaces, and determining a topic for each of the plurality of context spaces" (col. 3, line 63 through col. 4, line 3).

Regarding **claim 8**, Addison teaches everything claimed, as applied above (see claim 5). In addition, Addison teaches "the step of determining a speaking style further comprises selecting a speaking style from a plurality of predefined speaking styles, where each speaking style is associated with one or more anticipated topics" (col. 11, lines 57-67; styles: male, female, methodical).

Regarding **claim 9**, Addison teaches everything claimed, as applied above (see claim 5). In addition, Addison teaches "the step of customizing an output parameter further comprises generating synthesized speech" (Figs. 1-3, item 34, Speech output).

Regarding **claim 10**, Addison teaches everything claimed, as applied above (see claim 5). In addition, Addison teaches "the step of customizing an output parameter further comprises correlating the selected speaking style to one or more prosodic parameters and rendering audible speech for the input text using the prosodic parameters" (col. 3, lines 50-64).

Regarding **claim 12**, Addison discloses a text-to-speech system with the following components:

- a text analyzer receptive of input text and operable to determine semantic information for the input text (Fig. 1, item 12; Fig. 2, item 112, 114);
- a style selector adapted to receive semantic information from the text analyzer and operable to determine a speaking style for rending the input text based on the semantic information, where the selected speaking style correlates to one or more prosodic attributes (col. 24, lines 15-21; a style is determined; Fig. 2, items 114, 116, 120, 122);
- a phonetic analyzer adapted to receive input text from the text analyzer and operable to convert the input text into corresponding phoneme data (Fig. 1, items 22 and 26);
- a prosodic analyzer adapted to receive phoneme data from the phonetic analyzer and the prosodic attributes from the style selector, the prosodic analyzer further operable to apply the prosodic attributes to the phoneme data to form a prosodic representation of the phoneme data (Figs. 1-3, items 26, 28, 116, 120, 122, 142); and

- a speech synthesizer adapted to receive the prosodic representation of the phoneme data from the prosodic analyzer and operable to generate audible speech (Figs 1 and 3, Speech Output).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Addison in view of Apte et al. (U.S. Patent 6,253,169), hereinafter referred to as Apte.

Regarding **claim 2**, Addison teaches everything claimed, as applied above (see claim 1). In addition, Addison teaches that the text can be analyzed by the artificial intelligence unit to determine a topic (col. 11, lines 53-67; col. 18, lines 20-29; where the analysis will necessarily involve the words represented in the text), which corresponds to "defining a plurality of anticipated topics, such that each anticipated topic is associated with keywords that are indicative of the topic." But Addison does not specifically teach "determining frequency of the keywords in the input text; and selecting a topic for the input text from the plurality of anticipated topics based on the frequency of keyword occurrences contained therein." However, the examiner contends that these concepts were well known in the art, as taught by Apte.

In the same field of endeavor, Apte discloses a method for improving the accuracy of decision tree based text categorization. Apte's teachings include determining the frequency of words [keywords] in a document [text] to classify [associate a topic with] that document (col. 1, lines 45-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Addison by specifically providing the features, as taught by Apte, because it is well known in the art at the time of invention as an effective means of assigning a topic to text.

Regarding **claim 3**, Addison in view of Apte teaches everything claimed, as applied above (see claim 2). In addition, Addison teaches "the step of determining a speaking style further comprises selecting a speaking style from a plurality of predefined speaking styles, where each speaking style is associated with one or more anticipated topics" (col. 11, lines 57-67; styles: male, female, methodical, etc.; col. 18, lines 20-29; determine the general informational context [topic]);

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Addison in view of Sutton et al. (U.S. Patent 6,539,354), hereinafter referred to as Sutton.

Regarding **claim 11**, Addison teaches everything claimed, as applied above (see claim 5). But Addison does not specifically teach "the step of customizing an output parameter further comprises modifying at least one of an expression of a visually

displayed talking head and another attribute of a visual display." However, the examiner contends that this concept was well known in the art, as taught by Sutton.

In the same field of endeavor, Sutton discloses methods and devices for producing and using synthetic visual speech [facial animations] based on natural coarticulation. In addition, Sutton teaches that the animation can support various voice characteristics and emotions (Figs. 5A and 6; col. 4, lines 15-20; col. 14, lines 1-17; e.g. a character emotion can be specified –smile+jawdown+headright).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Addison by specifically providing the animation functionality, as taught by Sutton, because it is well known in the art at the time of invention for the purpose of producing realistic visual lipsyncing (col. 2, line 55 through col. 3, line 19).

Citation of Pertinent Art

4. The following prior art made of record but not relied upon is considered pertinent to the applicant's disclosure:

- Richard et al. (U.S. Patent 5,924,068) discloses an electronic news reception apparatus that performs text to speech conversion using rules and a dictionary to provide syntactic and semantic prosody for morpheme reconstructions.
- Farrett (U.S. Patent 5,636,325) discloses a system for speech synthesis and analysis including the use of a prosodic analyzer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

06/15/2005

V. Paul Harper
Patent Examiner
Art Unit 2654